

WHAT IS CLAIMED IS:

1. A metal vapor discharge lamp comprising:
an outer tube having a closed portion at a first end and a base at a
second end;
a discharge tube inside of which an electrode is provided, located in
the outer tube; and
a sleeve enveloping the discharge tube and located in the outer tube,
wherein;
the sleeve comprises an open portion on the closed portion side of the
outer tube,
the closed portion side of the outer tube is provided with a support for
supporting an end of the closed portion side of the sleeve,
the support comprises a column portion having a narrow plate shape
or a narrow stick shape separated from the open portion of the closed portion
side of the sleeve, and a sleeve holding portion provided at an end of the
column portion and is in contact with the sleeve, and
the support is connected to a feeding body connected to the electrode
and led from the discharge tube toward the side of the closed portion, and
connected to an electric power supply wire extending toward the side of the
base.
2. The metal vapor discharge lamp according to claim 1, wherein the
column portion is provided in the vicinity of the closed portion of the outer
tube.
3. The metal vapor discharge lamp according to claim 1, wherein the
column portion has a shape along the internal shape of the closed portion of
the outer tube.
4. The metal vapor discharge lamp according to claim 1, wherein the
column portion and the sleeve holding portion are formed of one continuous
member.
5. The metal vapor discharge lamp according to claim 1, satisfying the
following relationship:

$$0.05R \leq W \leq 0.25R$$

wherein W (mm) denotes a width of the column portion having the narrow plate shape and R (mm) denotes a maximum outer diameter of the outer tube.

6. The metal vapor discharge lamp according to claim 1, wherein the support is provided with a protruding portion that is provided in the vicinity of the closed portion of the outer tube and protrudes from the column portion.

7. The metal vapor discharge lamp according to claim 1, wherein the sleeve holding portion has an L-shaped cross section.

8. The metal vapor discharge lamp according to claim 1, wherein the sleeve holding portion is provided with concave grooves into which the end of the sleeve is fitted.

9. The metal vapor discharge lamp according to claim 1, wherein an elastic body is disposed between the sleeve holding portion and the feeding body.

10. The metal vapor discharge lamp according to claim 1, wherein the sleeve holding portion is provided with a convex portion that is brought into point-contact with the sleeve.

11. The metal vapor discharge lamp according to claim 1, wherein the feeding body, which is led from the discharge tube toward the side of the closed portion, extends to the closed portion and is sandwiched between the outer tube and the column portion of the support.

12. The metal vapor discharge lamp according to claim 1, wherein the outer tube is filled with an inert gas.

13. The metal vapor discharge lamp according to claim 12, wherein the inert gas is filled to a pressure of 1.33×10^4 Pa or more.

14. The metal vapor discharge lamp according to claim 1, wherein the discharge tube and the sleeve are arranged so that each of the central axis of the discharge tube and the central axis of the sleeve substantially corresponds to the central axis of the outer tube.

15. The metal vapor discharge lamp according to claim 1, wherein the discharge tube comprises a light-emitting portion in which an electrode is provided and a light-emitting metal and a rare gas are filled inside; and a thin tube portion which is provided at both ends of the discharge tube and in which a feeding body connected to the electrode is sealed with a sealing material inside the thin tube.

16. The metal vapor discharge lamp according to claim 15, wherein the light-emitting metal is a metal halide.

17. The metal vapor discharge lamp according to claim 1, wherein the feeding body is a conductive cermet obtained by sintering a mixture of molybdenum and alumina, or a metal body selected from the group consisting of niobium and molybdenum.

18. The metal vapor discharge lamp according to claim 15, wherein an end led from the discharge tube of one of the feeding bodies is connected to the support by welding.

19. The metal vapor discharge lamp according to claim 15, wherein an end led from the discharge tube of another of the feeding bodies is connected to the base via a metal wire.

20. The metal vapor discharge lamp according to claim 1, wherein the distance between the closed portion of the outer tube and the column portion is maintained at 3 mm or less.